1/31/2018 Response

CDOT has completed all AOC actions/deliverables required to date (date in red text and yellow highlight) and are on track for the remaining requirements (date in red text and blue highlight). Previously reported items are dates in red text and highlighted in gray.

EPA Administrative Order on Consent Order Action Requirements	CDOT Actions Completed January 31, 2018
63. CDOT shall comply with the 2015 Permit.	Status: Ongoing Actions: Trainings, tracking MS4 Permit program compliance including maintenance yards, water
	quality compliance on construction projects, and cleaning permanent water quality control facilities. All items listed in the permit compliance schedule were completed on time and continue to be updated as needed. All Program Description Documents can be found on our website (https://www.codot.gov/programs/environmental/water-quality/stormwater-programs.html).
	Next Steps: We will continue to follow our MS4 Permit and update program documents and SOPs as needed.
64. By December 31, 2017, CDOT shall conduct a review of its Stormwater Management Program resources and evaluate whether these resources (personnel, equipment and other	Status: 100% Complete as Required CDOT has completed this resource assessment and has put into place, measures for addressing identified gaps in the resources for MS4 Permit compliance.
resources) are adequate for implementing the current Stormwater Management Program and for complying with the 2015 Permit. By January 31, 2018, CDOT shall provide the EPA and	Actions: Details for AOC item 64 a), b), and c) are included in Attachment A_AOC Item 64_65_75. Resource Assessment Summary. Attachment A - also covers AOC Items 65 and 75.
CDPHE with a written summary of:	The expenditures before the audit were about \$7.72M/yr. Since the audit, the expenditures have increased to approximately \$7.82M with an expected annual expenditure of \$8.32M/yr
a) The Stormwater Management Program resources review;b) What additional resources are needed, if any, including a time frame for obtaining these resources; and	in the future, which has been committed to by Executive Management and the Regions. This future amount may decrease once some major program changes have been addressed. The staffing has also increased permanently by a few people, but many more are sharing in the workload than before and the use of consultants is increasing.

CDOT Actions Completed January 31, 2018
Many of the identified gaps have been addressed through the reallocation of staffing and funding, and by changing processes to be more efficient (including the funding to hire consultants to fill staffing and resource needs as they arise). Other gaps were filled by hiring additional staff, and by acquiring some additional, short-term funding to address maintenance of Maintenance yards or Permanent Water Quality Facilities to bring them to a level that is easy to maintain going forward. Through these changes in funding, resources, and processes, we feel that CDOT's program will function in a sustainable manner in future years.
Next Steps: Resources will continually be assessed through the MS4 Permit term (ends July 2020) and beyond to ensure that there are sufficient resources to stay compliant with the MS4 Permit. Because of this audit, we have adjusted our resources to better meet CDOT's needs in the future.
Status: 100% Complete as Required The approach is slightly different than described in this Order Action Requirement. HQ Maintenance is managing the additional funds, in collaboration with the regions, to make sure this funding is dedicated to the appropriate PWQF maintenance task. Details on the process are described in Attachment A – which also covers AOC Items 64 and 75.
Actions: 1) CDOT will contract out the initial deep cleaning of the PWQFs. This strategy will make annual maintenance easier to conduct, and maintenance frequency needs easier to determine.
2) CDOT is training/certifying water quality and maintenance staff regarding the inspection and maintenance of these PWQFs. CDOT is also hiring consultants to assist with the inspection of these facilities. Out of this initial diagnostic inspection and deep cleaning maintenance of these PWQFs, there will be an assessment of those PWQFs that may need construction support for those that are not properly functioning or need better access for maintenance, etc. These PWQFs will be pulled out of this deep cleaning maintenance effort and put in a "retrofit" group that will require additional engineering and environmental clearances prior to the implementation of the retrofits. The retrofit needs and schedule will be developed this year for a Transportation Commission funding approval request.

EPA Administrative Order on Consent Order Action Requirements	CDOT Actions Completed January 31, 2018 Next Steps: Conduct the work as planned and funded for the initial deep cleaning of the PWQFs and use this cost information, once spent, to establish how much funding will need in the future to ensure long-term maintenance of PWQFs.
66. By September I, 2017, CDOT shall complete its MS4 and Stormwater Management Plan training materials. By December 31, 2017, CDOT shall provide training to CDOT Headquarters and Regional staff with MS4 responsibilities on the requirements of the 2015 Permit and associated CDOT programs, including but not limited to:	Status: Development 100% Complete as Required; General MS4 Program training is ongoing and it is reaching more CDOT staff than what was identified as required. Tailored MS4 training is currently being given at CDOT Resident Engineer meetings across the State. Actions: The training materials as discussed with EPA in the May 9, 2017 meeting and submitted on May 12, 2017, have been completed on schedule. The list of training attendees and those
a) permit boundary determination, b) 2015 Permit requirements, c) construction general permit requirements, d) those portions of CDOT's Standard Specifications related to the stormwater program, and e) procedures for inspecting and maintaining PWQFs. By January 31, 2018, CDOT shall provide the EPA and CDPHE with a list of personnel with MS4 responsibilities who have and have not received the training.	that still require training, as requested from the AOC #66, is included in Attachment B_AOC Item 66_Training Sheet. The training development mentioned in the May 9, 2017 meeting included 5 classes: 1) MS4 Permit Programmatic Training development as required (by EPA Audit) - was completed as promised by July 2017 and was made available to the Region Water Pollution Control Managers on Google Drive for their use. This training (for water qualify professionals) has been tailored for specific audiences since then including general environmental professionals and for design and construction engineers. All of these modified trainings include, at a minimum, the 5 items listed (#a-e) in the AOC para #66. Some non-mandatory names are included in the class rosters in Attachment B because all staff are encouraged to take the training, even though they are not required to. 2) SWMP Preparer Class – This design class was completed and delivered by June 2017, which was before the September 2017 deadline. This class continues to be scheduled for CDOT and non-CDOT personnel. The mandatory staff include all staff that will be preparing SWMPs and in many cases a consultant prepares the SWMPs, so this is a very fluid number that is difficult to find. 3) SWMP Reviewer Class - this non-required, but considered a safeguard, training class has been added to the SWMP Preparer class in the form of a checklist that was developed in March 2017 for the MS4 Construction Manual. We will monitor the performance of this approach and determine if the class is actually needed. The mandatory staff include all environmental staff that will be "clearing" projects prior to advertisement.

EPA Administrative Order on Consent Order Action Requirements	CDOT Actions Completed January 31, 2018
	 4) PWQ Maintenance Certification Training – CDOT Specific – although this non-required, but considered a safeguard, training class was planned on being developed late next year, this training development has already been completed and delivered in Nov 2017. With the rollout of CDOT's new "GeoE" maintenance tracking app, and the funding for the deep cleaning maintenance of the PWQFs CDOT received this year, this training was moved ahead of schedule (this safeguard addresses 1ND, 2ND, and 3ND). This training also specifically addresses paragraph 66.e). 5) PWQ Drainage Design Review Certification - this non-required, but considered a safeguard, training class is planned for development in FY18/19. PWQ Design is reviewed on a project-by-project basis until this training is complete (this safeguard addresses 3ND). 6) Other CDOT MS4 program specific training classes have been updated to include items listed in 66 a) - e). Those classes, as discussed in earlier submittals to EPA, include: a) the Transportation Erosion Control Supervisor (TECS) class for erosion/sediment control supervisors on construction sites (addresses findings 1PM and 5 CS) and b) specific maintenance and pollution prevention/good housekeeping training given at CDOT's Maintenance Training Academy (MTA) that is required for all maintenance staff and during Facility Runoff Control Plan (FRCP) inspections (this addresses 1PP and 2PP). The attendee numbers are included in the summary tab in Attachment B.
	Next Steps: Complete video link or online training development to increase access for staff who have not yet taken training. Training on general MS4 for Resident Engineers began in January 2018 and will continue into March 2018 in all regions at the Area Engineer's Residency visits. This training will also be delivered to attendees of the 2018 Transportation and Environmental Professionals Training on March 6 and 7, 2018. The required MS4 training will be tracked in CDOT's Learning Management System and will be included as mandatory for those identified in this list. When they have not taken the class by an established deadline, their supervisors are automatically notified of their non-performance and follow up will occur by CDOT's management.
67. By July 1, 2018, CDOT shall develop a self- audit and corrective action program to ensure that the Construction Site Program is	Status: 20% Complete (not yet due) Actions:
that the Constituction often rogian is	Actions.

EPA Administrative Order on Consent Order Action Requirements	CDOT Actions Completed January 31, 2018
consistently implemented throughout each of its Regions. By July 1, 2019. CDOT shall complete the self-audits of each of its Regions in the Construction Site Program. By January 31, 2020, CDOT shall provide a report of the self-audit and corrective action program findings to the EPA and CDPHE.	Preliminary discussions about self-audits and corrective action plan program for the Construction Sites Program are occurring with regional staff. Although not required, 3 rd party audits (conducted by CDOT's independent Audit Department) are also being organized to provide additional credibility and accountability. Next Steps: Continue planning and developing the self-audit process in time for the July 1, 2018 and
the Li A and ODI TIE.	July 1, 2019 deadlines.
68. By July 1, 2018, CDOT shall develop a self-audit and corrective action program to ensure that the Post-Construction / New Development / Redevelopment [aka 2015 MS4 Permit Permanent Water Quality – PWQ] Program is consistently implemented throughout its Regions. By July 1, 2019, CDOT shall complete the self-audits of each of its Regions in the Post-Construction / New Development/ Redevelopment Program. By January 31, 2020, CDOT shall provide a report of the self-audit and corrective action program findings to the EPA and CDPHE.	Status: 10% Complete (not yet due) Actions: Preliminary discussions about self-audits and corrective action plan program for the Permanent Water Quality Program are occurring with regional staff. Although not required, 3rd party audits (conducted by CDOT's independent Audit Department) are also being organized to provide additional credibility and accountability. Next Steps: Continue planning and developing the self-audit process in time for the July 1, 2018 and July 1, 2019 deadlines.
69. By July 1, 2018, CDOT shall complete an evaluation of Design-Build improvement ideas for MS4 compliance and include any appropriate compliance improvements in the MS4 Construction Site Program. By September 1, 2018, CDOT shall update its MS4 Construction Site Program with the evaluation of the appropriate Design-Build improvement ideas for MS4 compliance and provide a written copy to the EPA and CDPHE. Thereafter, CDOT shall implement the Construction Sites Program to ensure CDOT requires contractors implement the requirements listed in the 2015 Permit.	Status: 25% Complete (not yet due) Actions: CDOT Environmental Programs Branch has been involved in a committee that is in charge of updating CDOT's Design Build Manual and Design Build templates. New language has been added for the implementation of and escalation of noncompliance on the PWQ and Construction Sites Programs and the 2015 MS4 Permit requirements. Next Steps: CDOT will continue to refine this guidance in accordance with the AOC #69 requirements.

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70. CDOT shall follow its *Standard Specifications* procedure for construction sites by issuing and collecting liquidated damages for corrective actions that are not completed within 48 hours from the date of the notification to correct the failure. By January 31, 2018, CDOT shall provide the EPA and CDPHE a list of all violations that were not corrected within 48 hours from the date of the notification to correct the failure, and any measure CDOT undertook to address them (e.g., liquidated damages, stop work orders) for the year 2017.

By January 31, 2019, CDOT shall provide the EPA and CDPHE a list of all violations that were not corrected within 48 hours from the date of the notification to correct the failure and any measures CDOT undertook to address them (e.g., liquidated damages, stop work orders) for the year 2018. The 2017 and 2018 lists shall also describe any violations that were not corrected within 48 hours and that did not receive a stop work order or issuance and collection of liquidation damages.

71. By January 31, 2018, CDOT shall provide the EPA and CDPHE with a written update of its Construction Site Program. The update will include: (1) an escalation process to address chronic noncompliance by contractors, and (2) a mechanism to track chronic noncompliance by contractors.

CDOT Actions Completed January 31, 2018

Status: 100% Complete as Required (some measures not yet due)

Actions:

CDOT has an electronic tracking system (ESCAN) for tracking the response to findings as directed by the Standard Specifications. Additionally, some of these liquidated damages can occur outside of the ESCAN system so interviews with project engineers will complete the story regarding what occurred on a project. These inspections, findings, and results of these findings including any escalations required for compliance are listed in Attachment C AOC Item 70 Audit Violations.

- 1) Please note that out of the hundreds of Routine Audits conducted by CDOT for the year of 2017, 15 projects within our MS4 exceeded the 48-hour period, which would require a regulatory response through Specification 208.09. CDOT has taken a proactive approach to encourage contractors and Project Engineers to correct all findings within the 48-hour window prior to a 208.09 response. Please note that this data should reflect our proactive approach correcting all findings from a Routine Audit immediately.
- 2) CDOT is updating Specification 208.09 (see response on Line item #71) for reporting year 2018, which will change the reporting metrics noted on the current line item.

Next Steps:

The 48-hour measure may change in the Standard Specifications (spring 2018) because of actions needed to address the AOC item #71 below. These changes will be decided by CDOT's Specifications Committee and the Chief Engineer/Director of Stormwater Compliance. This change, and its performance as indicated in this AOC item, will be outlined in the January 31, 2019 deliverable. CDOT will stay in compliance with all water quality revisions to the specifications.

Status: 100% Complete as Required (some measures not yet due)

<u>Actions:</u> See Attachment D_AOC Item 71_Construction Sites Program Update for additional information about the responses below.

- 1) To address the escalation process for chronic noncompliance by contractors
 - a) To date, suggested revisions to Specification 208.09, Failure to Perform Erosion Control, to address chronic noncompliance by contractors have been made and includes an escalation process to address chronic noncompliance, recalcitrant

	Current CDOT Actions Status
EPA Administrative Order on Consent Order Action Requirements	CDOT Actions Completed January 31, 2018
By January 31, 2019, CDOT shall provide the EPA and CDPHE with a list of chronic violators and measures it has taken to address chronic violations during 2018. By January 31, 2020, CDOT shall provide the EPA and CDPHE with a list of chronic violators and measures it has taken to address chronic violations during 2019.	violators and severe findings. Note that the revised 208.09 modifies the corrective action period from 48 hours to 7 calendar days, recognizing that the CDPS-SCP still requires corrections be "implemented as soon as possible, immediately in most cases". The shift to a 7-day corrective action period is accompanied by a significant increase in disincentives and these disincentives are applied per individual finding, as opposed to one disincentive for all findings from one MS4 Construction Program routine audit. The shift to a 7-day corrective action period will modify the metric CDOT uses to report progress on AOC Item No. 70. b) These changes must go through an extensive review process in CDOT. So far 208.09 has been reviewed by: • the Specifications Unit (SSU) • CDOT's Project Development Advisory Committee (PDAC) • CDOT's Water Quality Advisory Committee (WQAC) (January 23, 2018) • and is on the agenda for the next Specification Committee meeting in March 2018.
	To address tracking of chronic noncompliance by contractors CDOT is fast-tracking completion of ESCAN 2.0 which is the Department's internal software package used to track the MS4 Construction Program. This will track contractor and CDOT responses to issues of chronic non-compliance and others. Next Steps: After 208.09 is approved and implemented and ESCAN is updated, HQ will track its effectiveness and report to Executive Management on a quarterly basis.
72. By September 1, 2017, CDOT shall update and maintain an accurate inventory of its PWQFs. By January 31, 2018, and January 31, 2019, CDOT shall provide a copy of the current inventory, along with a description of any new PWQFs added to the inventory, to the EPA and CDPHE.	Status: 100% Complete as Required (some measures not yet due) Actions: The complete inventory of statewide Permanent Water Quality Features (PWQF) is provided in Attachment E_ AOC Items 72_ Permanent Water Quality Inventory (old and new) lists new PWQFs established since CDOT's report to the EPA on May 9, 2017. There are now 843 PWQF in our inventory, which is 156 more PWQF from when we met in May 2017. Some were due to items added in this past year, and some were from past projects not yet included in the inventory.

EPA Administrative Order on Consent Order Action Requirements	CDOT Actions Completed January 31, 2018
	Next Steps: Continue to update and monitor the PWQF inventory in CDOT's current work order tracking system (SAP) and add new inventory when it is installed. Identify information in Attachment E that is marked TBD when GeoE and SAP are linked.
73. By September 1, 2017, CDOT shall develop a procedure to ensure long-term maintenance of CDOT's PWQFs, including those that are covered under IGAs other similar agreements with municipalities. By September I, 2017, CDOT shall provide a written procedure to the EPA and CDPHE describing: a. How inspection findings are communicated to maintenance personnel; b. How maintenance work activities are generated and tracked; c. How CDOT will keep an accurate inventory of PWQFs covered by an IGA and therefore are to be maintained by the municipality; d, How CDOT will transmit the information from routine inspection of PWQFs to the municipality; and e. How CDOT will verify the maintenance needs transmitted to the municipality are accomplished.	Actions: CDOT delivered the Permanent Water Quality SOP – Inventory, Communicating and Tracking Maintenance to EPA on September 1, 2017. CDOT's upcoming conversion (anticipated summer 2018) to a new electronic work order tracking system, GeoE, will require revisions in the SOP. These revisions will clarify communication and job roles between CDOT's PWQF program, CDOT Maintenance and contractors in relation to: 1) PWQF Inspection Types (Initial Diagnostic, Compliance, Routine and Eyes-On Inspections) and respective Maintenance duties. 2) Scheduling maintenance when an inspection report, or other inspection notice, is received by Maintenance or contractors. 3) Inclusion of this SOP in the revised Manual of Maintenance Procedures Section 17.4.9, Permanent Water Quality Control Measures. 4) PWQFs that have IGAs will be included in CDOT's routine inspections by the region water pollution control managers, or their designees, to verify maintenance work is done in accordance with CDOT's MS4 Permit requirements. Next Steps: Revise the SOP to address items 1, 2 and 3 when GeoE is online.
74. No later than the date CDOT submits the procedure described in paragraph 73 above (September I, 2017), to the EPA and CDPHE, CDOT shall implement that procedure. CDOT shall inspect all functional elements of control measures at a frequency it determines; however, it shall inspect each control measure	Status: 100% Complete as Required (some measures not yet due) Actions: Conversion to GeoE, the new electronic work order tracking system, is anticipated to occur in summer 2018. Following the conversion, the revisions to the Permanent Water Quality SOP –Inventory, Communicating and Tracking Maintenance will be made. Meanwhile, CDOT has been inspecting and maintaining PWQF in 2017 and has provided a list with

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at least once during the 2015 Permit term. CDOT shall maintain all control measures requiring routine maintenance as necessary to meet the control measure requirements in the 2015 Permit as soon as possible, but not later than six months from the inspection finding. No later than January 31, 2018, and January 31, 2019, respectively, CDOT shall provide the EPA and CDPHE with a written summary report of all inspections and maintenance of PWQFs for the calendar years 2017 and 2018. For each PWQF CDOT has inspected during the relevant year. the summary report to the EPA shall provide CDOT's PWQF tracking number. a short description of the PWQF, the PWQF's latitude and longitude, the date of CDOT's inspection, the date of CDOT's maintenance, a summary of inspection findings including maintenance needs and/or a summary of the maintenance activities, and whether the PWQF is being maintained by CDOT or, under an IGA or similar agreement, a municipality.

details of these actions in Attachment F AOC Item 74 PWQ Inspections. Regions 1 and 2 are represented in the attachment because the other Regions are currently coordinating with CDOT Headquarters to schedule inspections during the Permit term.

Next Steps:

Revise and implement the SOP after GeoE is online. Continue to inspect PWQF maintenance needs and activities so that all are completed by the end of CDOT's MS4 Permit term (July 2020).

75. By January 31, 2018, CDOT shall submit an itemized list of all costs incurred or estimated to be incurred to implement the corrective actions listed in the Inspection Report and actions specified in paragraphs 64 through 74, above. The itemized list of costs shall include at a minimum:

Status: 100% Complete as Required

a. the cost of any full-time equivalent (FTE) staff added to CDOT's budget to comply with this Consent Order and implement the corrective

actions listed in the Inspection Report; b. the cost of contractor support in order to comply with this Consent Order and implement

Actions:

CDOT conducted many actions because of EPA's 2015 inspection report. These, and any other actions necessary to be in compliance with CDOT's 2015 MS4 Permit, as well as those requested in this AOC, have been listed in Attachment A - which also covers AOC Items 64 and 65.

Next Steps:

CDOT will continue to track costs and estimate future budgetary needs. This tracking should improve when the new electronic work tracking system, GeoE, is installed in summer 2018 for maintenance activities.

EPA Administrative Order on Consent Order Action Requirements	CDOT Actions Completed January 31, 2018
the corrective actions listed in the Inspection Report; and c. any other itemized costs incurred to implement the corrective actions listed in the Inspection Report and the actions specified in paragraphs 64 through 74, above.	